

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A positive displacement piston unit comprising:

a housing having a radial bore disposed therein;
a plurality of cylinder bores within the housing, each bore
having a top end opposite a bottom end with a piston
traveling therebetween;
each said piston extending into the radial bore;
first and second fluid passages connected to the top end and the
bottom end of each bore;
ana first electro-energized field generating element associated
with the first fluid passage;
a second electro-energized field generating element associated
with the second fluid passage;
a rheological fluid disposed within the fluid passages wherein
the rheological fluid drives the cylinder pistons; and
~~the pistons are arranged in an axial configuration~~an inlet
fluidly connecting the radial bore to the first electro-
energized field generating element wherein fluid from the
radial bore flows directly into the inlet.
2. (original) The piston unit of claim 1 wherein the viscosity of the rheological fluid increases in the presence of a magnetic field.

3. (original) The piston unit of claim 1 wherein the viscosity of the rheological fluid increases in the presence of an electric field.

4. (original) The piston unit of claim 1 wherein the electro-energized field generating element comprises an electromagnet.

5. (original) The piston unit of claim 1 wherein the electro-energized field generating element comprises an electrode.

6.-7. (cancelled)

8. (original) The piston unit of claim 1 wherein the pistons are arranged in a radial configuration.

9. (original) The piston unit of claim 1 further comprising a hydraulic pump.

10. (original) The piston unit of claim 1 further comprising a hydraulic motor.

11. (original) The piston unit of claim 1 further comprising an electronic controller to control the energizing and de-energizing of the electro-energized field generating element.

12. (original) The piston unit of claim 11 wherein the controller selectively energizes and de-energizes the electro-energized field generating element to reduce flow of the rheological fluid through the fluid passages.

13. (original) The piston unit of claim 11 wherein the controller selectively energizes the electro-energized field generating element associated with one cylinder and de-energizes the electro-energized field generating element associated with an adjacent cylinder to reduce flow of the rheological fluid through the piston unit.

14. (previously presented) The piston unit of claim 1 further comprising:

an inlet fluidly associated with the first electro-energized field generating element and the piston such that when the piston reciprocates, fluid outside the bore passes from the inlet through the electro-energized field generating element to the first fluid passageway and into the bore.

15. (previously presented) The piston unit of claim 14 further comprising an outlet associated with the second electro-energized field generating element such that fluid passes from the bore through the second fluid passage to the second electro-energized field generating element to the outlet.

16. (new) A positive displacement piston unit comprising:

a housing;

a plurality of cylinder bores within the housing each bore

having a piston traveling therein;

first and second fluid passages connected to each bore;

a first electro-energized field generating element associated with the first fluid passage;

a second electro-energized field generating element associated with the second fluid passage;

a rheological fluid disposed within the fluid passages wherein the rheological fluid drives the cylinder pistons; wherein the first electro-energized field generating element has a channel formed between an electromagnet and a housing and is in fluid communication with an inlet and valve outlet; and wherein when energized the electromagnet creates a magnetic field across the channel to solidify the rheological fluid to prevent the movement of fluid through the channel.

17. (new) The positive displacement piston unit of claim 16 further comprising a solenoid coil encircling the electromagnet.

18. (new) The positive displacement piston unit of claim 16 wherein the pistons are arranged in an axial configuration.

19. (new) The positive displacement piston unit of claim 16 wherein the pistons are arranged in a bent axis configuration.

20. (new) The positive displacement piston unit of claim 16 wherein the pistons are arranged in a radial configuration.